

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended): A display device comprising:
2 a back substrate formed with a plurality of electron emission elements;
3 a display substrate disposed opposite to said back substrate, said display substrate
4 including an accelerating electrode applied with an accelerating voltage for accelerating
5 electrons from said electron emission elements, and luminescent materials for emitting light
6 when said luminescent materials come into collision with the electrons accelerated by the
7 accelerating voltage;
8 a frame member for supporting said back substrate and said display substrate on
9 the peripheries thereof, said frame member, said back substrate, and said display substrate
10 surrounding a space to define a vacuum area; and
11 a conductor ~~electrically-connected~~ electrically to said accelerating electrode
12 [[and]], applied with the accelerating voltage, and routed outside of said frame member which
13 forms said vacuum area,
14 wherein said conductor ~~is routed outside of said vacuum area, and~~ includes a
15 connection part extending from said conductor and onto which a connector is removably
16 connectable ~~connected to a connector~~ for supplying the accelerating voltage.
- 1 2. (Original): A display device according to claim 1, wherein said conductor
2 is routed on a side of said display substrate opposite to said back substrate outside of said
3 vacuum area.

1 3. (Currently Amended): A display device according to claim 1, wherein
2 said connection part includes a rod member extending in a direction substantially
3 orthogonal to a plane including said conductor, and said connector is removably fitted
4 over said rod member.

1 4. (Original): A display device according to claim 3, wherein said connector
2 comprises an insulating cap for covering an end of said conductor and said rod member.

1 5. (Original): A display device according to claim 1, wherein a distance
2 between an end of said conductor and an end of an optically transparent substrate is in a range of
3 2 to 5 mm, said optically transparent substrate constituting said display substrate.

1 6. (Currently Amended): A display device comprising:
2 a back substrate including an insulating substrate, and a plurality of electron
3 emission elements formed on said insulating substrate;
4 a display substrate including an optically transparent substrate disposed opposite
5 to said back substrate, an accelerating electrode plate disposed on an inner face of said optically
6 transparent substrate and applied with an accelerating voltage for accelerating electron beams
7 emitted from said electron emission elements, and a luminescent material layer excited by the
8 electron beams accelerated by the accelerating voltage to emit light to the outside of said
9 optically transparent substrate;

10 a frame member for supporting said back substrate and said display substrate on
11 the peripheries thereof, said frame member, said back substrate, and said display substrate
12 surrounding a space to define a vacuum chamber; and

13 a conductor ~~electrically~~-connected electrically to said accelerating electrode plate,
14 embedded between said optically transparent substrate and said frame member, and drawn out to
15 a predetermined region outside of said frame member for forming said vacuum chamber, when
16 viewed from a light exiting side, toward said back substrate on said optically transparent
17 substrate,

18 wherein said conductor includes a connection part extending from said conductor,
19 ~~which is embedded between said optically transparent substrate and said frame member, and is~~
20 and onto which a connector is removably connected connectable to a connector for supplying the
21 accelerating voltage.

1 7. (Original): A display device according to claim 6, wherein:
2 said optically transparent substrate and said insulating substrate are both
3 substantially rectangular;
4 said conductor is drawn out to one longer side of said optically transparent
5 substrate; and
6 said optically transparent substrate has shorter sides longer than shorter sides of
7 said insulating substrate.

1 8. (Original): A display device according to claim 7, wherein:
2 said vacuum chamber is substantially rectangular in shape when viewed from a
3 light exiting side; and
4 a distance in a shorter side direction between one longer side of said vacuum
5 chamber and one longer side of said optically transparent substrate sandwiching said
6 predetermined region of said optically transparent substrate is longer than a distance in the
7 shorter side direction between the other longer side of said vacuum chamber and the other longer
8 side of said optically transparent substrate.

1 9. (Original): A display device according to claim 6, wherein:
2 said optically transparent substrate and said insulating substrate are both
3 substantially rectangular;
4 said conductor is drawn out to one shorter side of said optically transparent
5 substrate; and
6 said optically transparent substrate has longer sides longer than longer sides of
7 said insulating substrate.

1 10. (Original): A display device according to claim 9, wherein:
2 said vacuum chamber is substantially rectangular in shape when viewed from a
3 light exiting side; and
4 a distance in a longer side direction between one shorter side of said vacuum
5 chamber and one shorter side of said optically transparent substrate sandwiching said
6 predetermined region of said optically transparent substrate is longer than a distance in a longer
7 side direction between the other shorter side of said vacuum chamber and the other shorter side
8 of said optically transparent substrate.

1 11. (Currently Amended): A display device according to claim 6, wherein:
2 said back substrate includes a driving [[line]] wire for driving said electron
3 emission elements, and an electrode area to which an electrode is drawn out for connection to
4 said driving line; and
5 said conductor is routed along a side on which said electrode area is not formed.

1 12. (Original): A display device according to claim 6, wherein:
2 said display substrate comprises a plurality of miniature holes arranged in matrix,
3 said miniature holes containing said luminescent materials to form a light emitting area, and a
4 metal sheet disposed on a side of said display substrate closer to said back substrate and having a
5 plurality of recesses for vertically holding supporters;
6 said metal sheet is secured to an inner face of said optically transparent substrate
7 through an adhesive layer, and said metal sheet has said accelerating electrode plate electrically
8 connected to said metal sheet on a side of said metal sheet closer to said back substrate; and
9 a portion of said metal sheet is embedded between said adhesive layer and said
10 frame member, and integrally drawn out to said predetermined region to constitute said
11 conductor.

1 13. (Original): A display device according to claim 12, wherein said metal
2 sheet is mainly composed of Fe-Ne.

1 14. (Original): A display device according to claim 6, further comprising a
2 conductive resilient body in electric contact with a high voltage terminal for supplying the
3 accelerating voltage,
4 wherein said conductor includes a recess formed therein for fitting said resilient
5 body thereinto, said resilient body being pressed in a thickness direction of said display substrate
6 to fit said resilient body into said recess.

1 15. (Currently Amended): A display device comprising:
2 a back substrate having a plurality of electron emission elements formed thereon;
3 a display substrate disposed opposite to said back substrate, said display substrate
4 comprising an accelerating electrode applied with an accelerating voltage for accelerating
5 electrons from said electron emission elements, and luminescent materials for emitting light
6 when said luminescent materials come into collision with the electrons accelerated by the
7 accelerating voltage;

8 a frame member for supporting said back substrate and said display substrate on
9 the peripheries thereof, said frame member, said back substrate, and said display substrate
10 surrounding a space to define a vacuum area; and

11 a conductor ~~electrically-connected~~ electrically to said accelerating electrode and
12 ~~applied with the accelerating voltage~~ which includes a connection part extending from said
13 ~~conductor and onto which a connector is removably connectable for supplying the accelerating~~
14 voltage,

15 wherein said back substrate ~~includes~~ is formed with a driving wire ~~formed for~~
16 ~~applying said electron emission elements with a signal for driving said electron emission~~
17 ~~elements,~~ said driving wire being drawn out to one or a plurality of sides of said back substrate,
18 and

19 wherein said conductor is routed ~~along out~~ out a side of said display substrate
20 ~~opposing a side of said back substrate to on~~ which said driving wire is not drawn out disposed,
21 and said conductor is drawn ~~out~~ to the outside of said vacuum area.

Appl. No. 10/684,059
Amdt. sent September 19, 2006
Reply to Office Action of June 26, 2006

PATENT

16. (Canceled)